AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application:

Listing of Claims:

Claims 1.-7. (Cancelled)

8. (Currently Amended) A method of processing a semiconductor sample having ~~an Al alloy~~ a refractory metal film on a substrate, and ~~a refractory metal~~ an Al alloy film directly laminated on the ~~Al alloy~~ refractory metal film, whereby electrolytic corrosion could be generated and accelerated due to battery action between the refractory metal film and the Al alloy film, comprising the steps of:

(i) etching the ~~refractory metal~~ Al alloy film directly laminated on the ~~Al alloy~~refractory metal film, and the ~~Al alloy~~ refractory metal film, using a resist mask, by means of a first plasma formed in a first gas with first processing conditions while applying radio-frequency bias power to the sample, residual corrosive compounds being left on the refractory metal film and the Al alloy film after the etching,

(ii) after step (i), ashing the resist mask on the ~~refractory metal~~ Al alloy film and said surface of the refractory metal film and the Al alloy film etched in step (i) by means of a second plasma to remove at least the resist mask and said residual corrosive compounds formed in step (i), said second plasma being formed in a second gas and with second processing conditions, said ashing being carried out at a second location different from a first location where said etching is carried

out, and wherein the semiconductor sample is transferred from said first location to said second location through a chamber forming an atmosphere having a pressure reduced from atmospheric pressure,

(iii) contacting a surface of the refractory metal film and the Al alloy film etched in step (i) and ashed in step (ii) with at least one liquid which effects at least one of (a) removal of said residual corrosive compounds formed in step (i) which were not removed in step (ii) and (b) passivation of said surface etched in step (i) and ashed in step (ii), and

(iv) after step (iii), drying the surface of the refractory metal film and the Al alloy film which is etched,

wherein steps (i) - (iv) are performed using a ~~single~~ sample processing apparatus having treatment chambers in which the steps (i) - (iv) are carried out, wherein the treatment chambers of said sample processing apparatus for steps (i) - (iv) are physically connected, and wherein each treatment chamber treats one sample at a time.

9. (Original) A method according to claim 8, wherein step (iv) takes place in the same environment as step (iii).

10. (Original) A method according to claim 8, wherein the drying uses an inert gas.

11. (Original) A method according to claim 8, wherein step (ii) uses oxygen as part of the second gas.

12. (Original) A method according to claim 8, wherein step (iii) is carried out in an inert gas atmosphere.

13. (Original) A method according to claim 8, wherein step (iii) is carried out in an atmospheric atmosphere.

14. (Original) A method according to claim 8, wherein step (iv) is carried out in an atmospheric atmosphere.

15. (Original) A method according to claim 8, wherein step (iv) includes introducing a dry gas to the sample.

16. (Cancelled).

17. (Original) A method according to claim 8, wherein step (ii) removes the whole of said resist mask.

18.-26. (Cancelled).

27. (Currently Amended) A method of processing a semiconductor sample having ~~an Al alloy~~ a refractory metal film formed on a substrate, ~~a refractory metal~~ an Al alloy film directly laminated on the ~~Al alloy~~ refractory metal film, and a resist mask formed on the ~~refractory metal~~ Al alloy film, whereby corrosion could be generated

and accelerated by electrolytic corrosion due to battery action between the refractory metal film and the Al alloy film, comprising the steps of:

(i) etching the ~~refractory metal~~ Al alloy film directly on the ~~Al alloy~~ refractory metal film, and the ~~Al alloy~~ refractory metal film, through said resist mask, by means of a first plasma, so as to form an etched sample having an etched shape which corresponds to a pattern of said resist mask, while applying radio-frequency bias power to the sample, residual corrosive compounds from the etching being left on the etched refractory metal film and the Al alloy film;

(ii) after step (i), treating the etched surface of the ~~refractory metal~~ Al alloy film and the ~~Al alloy~~ refractory metal film by means of a second plasma, to remove said residual corrosive compounds formed in step (i) and to remove said resist mask, said treating being carried out at a second location different from a first location where said etching is carried out, and wherein the semiconductor sample ~~having the laminate~~ is transferred from said first location to said second location through a chamber forming an atmosphere having a pressure reduced from atmospheric pressure;

(iii) contacting a surface of the refractory metal film and the Al alloy film etched in step (i) and treated in step (ii) with at least one liquid, to remove said residual corrosive compounds which were not removed in step (ii); and

(iv) after step (iii), drying the surface of the refractory metal film and the Al alloy film,

wherein the steps (i) - (iv) are performed in a ~~single~~ sample processing apparatus having treatment chambers in which the steps (i) - (iv) are carried out, wherein the treatment chambers of said sample processing apparatus for steps (i) -

(iv) are physically connected, and wherein each treatment chambers treats one sample at a time.

Claims 28.-66. (Cancelled).

67. (Currently Amended) A method according to claim 8, wherein the residual corrosive compounds left on the etched sample, after the etching, includes residual corrosive compounds left in material of the resist mask remaining on the etched surface of the ~~refractory metal~~ Al alloy film and the ~~Al alloy~~ refractory metal film.

68. (Currently Amended) A method according to claim 27, wherein the residual corrosive compounds left on the etched sample, after the etching, includes residual corrosive compounds left in material of the resist mask remaining on the etched surface of the ~~refractory metal~~ Al alloy film and the ~~Al alloy~~ refractory metal film.

69. (New) A method according to claim 8, wherein the samples are transferred between steps, of steps (i) - (iv), one sample at a time.

70. (New) A method according to claim 27, wherein the samples are transferred between steps, of steps (i) - (iv), one sample at a time.

71. (New) A method according to claim 8, wherein the samples are transferred to step (i), between steps (i) and (ii), between steps (ii) and (iii), between steps (iii) and (iv), and from step (iv), one sample at a time.

72. (New) A method according to claim 27, wherein the samples are transferred to step (i), between steps (i) and (ii), between steps (ii) and (iii), between steps (iii) and (iv), and from step (iv), one sample at a time.